

## Research Article

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## Notes on *Muschampia proteides* (Wagner) (Lepidoptera, HesperIIDae)

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**Abstract:** Notes on *Muschampia proteides* (Wagner) (Lepidoptera, HesperIIDae). *Cesa News* 140: 1-6, 14 figs.

In this paper, three issues about *Muschampia proteides* (Wgn.) (HesperIIDae) are discussed; validity of the names *proteides* and *lycaonius* Wgn; illustrative information on the early stages in Turkey; on the recent faunistic records in Turkey. Male genitalia is illustrated and compared.

**Keywords:** *Muschampia proteides*, HesperIIDae, Lepidoptera, fauna, bionomy, male genitalia.

### Nomenclature

The status of two names *proteides* Wagner and *lycaonius* Wagner was clarified by the second author (Koçak, 1989). According to this, both names are objective synonyms of a specific taxon of the genus *Muschampia* Tutt, represented in South-East Europe, Turkey, and some neighbour countries in the Middle East. The valid name is *proteides* Wagner, according to the Priority Rules of the ICZN. Until 2001, the species was represented by its nominate subspecies only in the region, i.e., ssp. *proteides* Wgn.

Benyamini & Avni (2001) described a new subspecies from Israel and western Jordan, “*Muschampia proteides stepporum* subsp.nov.”. In their paper, the authors considered two distinct subspecies of *Muschampia proteides* (Wgn.), namely, *stepporum* (subsp.nov.), and ssp. *lycaonius* Wgn. The name *lycaonius* Wgn., used by Benyamini and Avni (2001) is incorrect, as it is junior objective synonym of *proteides* Wgn. (Koçak, 1989). Therefore, the subspecies of *Muschampia proteides* (Wgn.) must be called in the Levantine as follows;

*Muschampia proteides* ssp. *proteides* (Wgn.) from South Lebanon and Hermon Mt.

*Muschampia proteides* ssp. *stepporum* Benyamini & Avni, 2001 from Israel, western Jordan.

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*Bionomy*

The authors observed bionomy of this species from Bahçesaray (Van Province, East Turkey) (**Figs. 1-4**), and from Nizip (Samandöken) (Gaziantep Province, S. Turkey) (**Figs. 5-9**) in 2016, and 2017, respectively.

In the year of 2016, at lower Mukus valley (Bahçesaray, Van Pr.) the first author observed caterpillar of *Muschampia proteides* among the *Phlomis* leaves on 11 June 2016 (**Figs. 1, 2**). Pupa developed on 20 June. The butterfly emerged on 25 August 2016. Pupal skin, and the adult butterfly are illustrated below (**Figs. 3, 4**). Similarly, in 2017, the first author observed among the leaves of *Phlomis*, a similar caterpillar on 24 April at Nizip (Samandöken) (Gaziantep Pr.) (**Fig. 5**). Pupa developed on 18 5 2017. The female butterfly emerged in captivity on 15 9 2017 (**Figs. 6-9**).

The authors listed vernal Lepidoptera of Euphrates Region in South Turkey (Kemal & Koçak, 2017). The present record of *Muschampia proteides* is new to Gaziantep fauna and also Euphrates Region.

*Present status in Turkey*

The species with synonyms, vernacular names, original reference, range, etc are given below briefly, basing upon the info-system of the Cesa.<sup>2</sup>

***Muschampia proteides* (F.Wagner,1929)****(Figs. 1-14)**

Synonyms: *proteides* F.Wagner,1929; *lycaonius* F.Wagner,1929; *sovietica* Sichel,1964; *lycaonius* Benjamini & Avni,2001 [misident.]; *#lycaomius* Benjamini & Avni,2001

Vernacular names: Anadolu Zıpızı (Turkish), Anatoliye Pindigi (Uygurian), Anatolian Skipper.

Original Reference: *Hesperia proto* ssp. *proteides* F.Wagner,1929, Mitt. münch. ent. Ges. Taf.2 fig.26 Type

♂: [Türkei]: Akschehir [15 Febr.1929]. Range (in code): MK UA Cm Cc RU Sr KG Kr IQ IR Ab JO LB TR Uk KG Cc AM IL Pa Js Nab JO SY He LB Bei Zah Baa 01 03 05 06 07 08 13 14 15 20 21 24 25 27 32 33 38 42 43 44 46 48 49 51 56 58 60 65 70 73 76 05A 06B 06Bc 06D 06E 06H 06K 06N 06R 06Rd 06V 06Z 13F 13G 27D 27Dd 33P 44F 44Fb 46F 48G 48Gb 49F 49Fd 50G 50Gd 56F 58G 58Ga 58Gg 58Gj 65A 65Au 65Am 65Am2 65D 65Dd 65F 65Fb 65Fç 65Fr 65Fp 65Fz 65G 65Gb 65K 65Kg 65Ku 70C 70Cb 70Cd 76C

Phagism: Phytophag. Bionomy: Larva on *Phlomis brachyodon*, *P. chrysophylla*, *P. kurdica* (Lamiaceae) (Benjamini & Avni,2001); on *Phlomis* sp. (ex Van Pr., Bahçesaray) (Kemal & Koçak, in litt.). Habitat in Turkey: Various malacophyllous mountain steppe, between the elevation of 0900-2500m.

After reading the codes mentioned above (Koçak & Kemal, 2017), the distributional information can be simplified and summarized as follows: The species is distributed in Macedonia, Crimea, Russia (Krasnodar, Saratov), Caucasus (Armenia), Kazakhstan (Uralsk), Iraq, Iran, Jordan, Lebanon, Syria, and Israel. In Turkey, the species was reported from 31 provinces, so far (%38.27 of the total 81 provinces).

In recent publications of the authors, the species *Muschampia proteides* Wgn. was reported from East Mediterranean countries (Kemal & Koçak, 2011), from Gürün, Ziyaret Pass and Kaynarca (Gürün) (Sivas Pr.) (Kemal & Koçak, 2013), Sivas Province (Kemal & Koçak, 2015), Malatya Province (Koçak & Kemal, 2015), Çatak (Van) (Kemal & Koçak, 2016a), Artos Mountain (Van) (Kemal & Koçak, 2008, 2016b).

Further unpublished faunistical information or images by the authors on *Muschampia proteides* Wgn. are as follows; Zerneke (Gürpınar) [65Gb] (**Fig. 10**), Kurubaş Pass [65Kg], Kevenli (Kopanis) [65Ku], all of them in Van Province. Ayaş Dağları (Ankara Pr.) ex photo archive (**Figs. 12, 13**). Ziyaret Pass (Sivas Prov.) again in 2017.

Grown caterpillars cylindrical, fully hairy. Head dull black, first thoracic segment orange dorsally (**Figs. 2, 7**). The body colouration and longitudinal darker maculations in the specimens from Bahçesaray (Van) and Nizip (Gaziantep) are not so different from each other. Abandoned pupal skin somewhat waxed in appearance (**Fig. 3**). In Anatolian territory, the species is represented by the nominate subspecies, ssp. *proteides* Wgn. It seems necessary a confirmation about the subspecies in Israel and adjacent countries proposed by Benyamini and Avni.

The male genitalia of *Muschampia proteides* is illustrated here for the first time (**Fig. 14**). The nearest species seems to be *hieromax* Hemming,1932, described from Ajlun (W. Jordan). However, some dissimilarities are the shapes of uncus tip, anellus length and shape, and aedeagus.

<sup>2</sup> <http://www.cesa-tr.org/Infos.htm>



The material studied is preserved in the collection of the Cesa. All the photographs were taken by the first author, and preserved in the Cesa Archive.



**Figs. 1, 2** - *Phlomis* sp. together with a caterpillar inside (left); caterpillar of *Muschampia proteides* on 11 6 2016 (right).



**Figs. 3, 4** - Pupal skin of *Muschampia proteides* (left); emerged butterfly in captivity on 25 8 2016 (right).



**Fig. 5**— Habitat of *Muschampia proteides*. Gaziantep Prov., Nizip, Samandöken 430m (27Dd), 24 4 2017.





**Figs. 6, 7** – Concealed caterpillar among the *Phlomis* leaves (left), full grown caterpillar in the leaf chamber on 24 4 2017 (right).



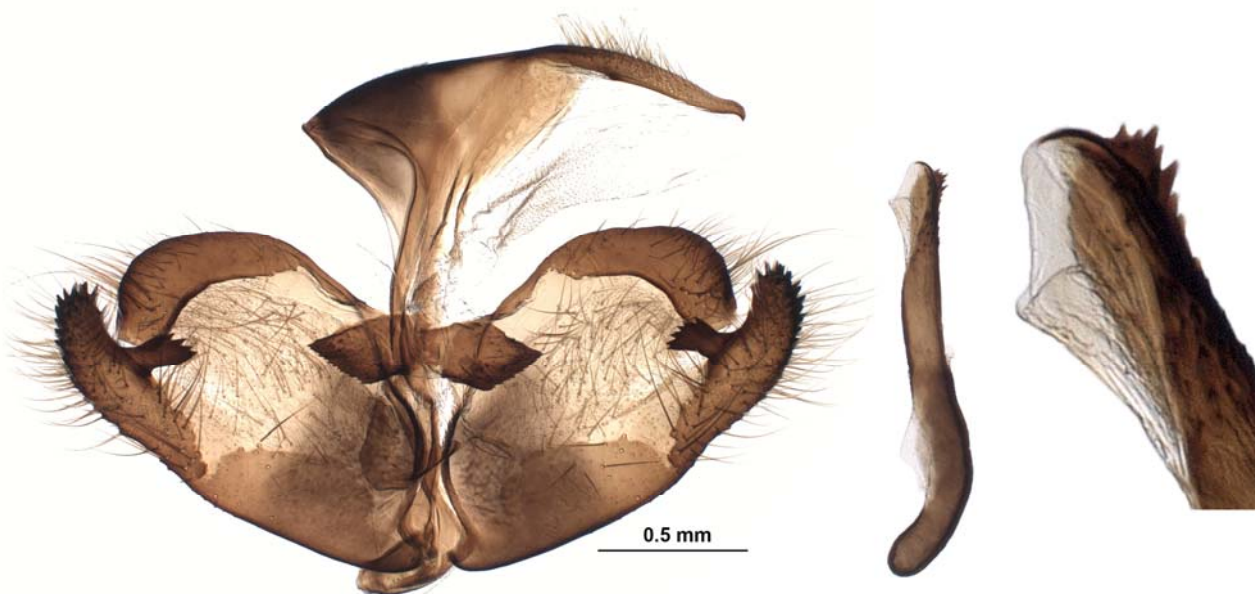
**Figs. 8, 9** – Pupal cremaster of *Muschampia proteides* (left), emerged female butterfly on 15 9 2017 (right).



**Figs. 10, 11** – *Muschampia proteides* from Gürün (Kaynarca) (Sivas Pr.), during feeding on *Centaurea* flower (*Asteraceae*), on 30 8 2013 (left); male of the same species at rest Van Pr. Gürpınar, Zerne 1975m (65Gb) 27 8 2017 (right).



**Figs. 12, 13** – *Muschampia proteides* upperside (left), and underside of male (right). Ankara Pr., Ayaş Mts. Asartepe Barajı 1150m (06Bc), 6 8 2000, M. Kemal & A.Koçak leg.



**Fig. 14** – Male genitalia of *Muschampia proteides*, aedeagus tip enlarged. East Turkey, Sivas Pr Gürün, Ziyaret 1900m (58Gg), 30 8 2017, M Kemal leg. (Cesa)

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